UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450

## NOTICE OF ALLOWANCE AND FEE(S) DUE

49267 7590 08/26/2008
KEUSEY, TUTUNJIAN & BITETTO, P.C.
20 CROSSWAYS PARK NORTH, SUITE 210

EXAMINER

LENNOX, NATALIE

ART UNIT PAPER NUMBER

2626 DATE MAILED: 08/26/2008

20 CROSSWAYS PARK NORTH, SUITE 210 WOODBURY, NY 11797

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,838	09/05/2003	Mark E. Epstein	YOR920030404US1	7073
TITLE OF INVENTION: SI	EMANTIC LANGUAGE M	ODELING AND CONFIDENCE MEASUREMENT	(163-13)	

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	11/26/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE DEE and DURI ICATION DEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth tions	ng the Patent, advance on nerwise in Block 1, by (	rders and notification of r a) specifying a new corre	naintenance fees w spondence address;	ill be and/o	mailed to the current r (b) indicating a sepa	corresponder	oondence address as EE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
	7590 08/26 FUNJIAN & BITI YS PARK NORTH, NY 11797	ETTO, P.C.		Cer	tificat	e of Mailing or Trans s) Transmittal is being ficient postage for fire ISSUE FEE address I) 273-2885, on the d	mission g depos at class above, ate indi	ited with the United mail in an envelope or being facsimile cated below.
								(Depositor's name)
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								(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.		CON	FIRMATION NO.
10/655,838 TITLE OF INVENTION	09/05/2003 SEMANTIC LANGUA	AGE MODELING AND	Mark E. Epstein CONFIDENCE MEASUR	EMENT	YC	0R920030404US1 (163-13)		7073
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	S FEE	TOTAL FEE(8) DUE	Т	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0		\$1740		11/26/2008
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	1				
LENNOX,		2626	704-004000	•				
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME A	ondence address (or Cha B/122) attached. ication (or "Fee Address 22 or more recent) attach ND RESIDENCE DAT/ less an assignce is ident h in 37 CFR 3.11. Comp	nge of Correspondence  "Indication form led. Use of a Customer  A TO BE PRINTED ON	2. For printing on the p (1) the names of up to or agents OR, alternati (2) the name of a singl registered attorney or a 2 registered patent atto listed, no name will be THE PATENT (print or tyl data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY	3 registered paten vely, e firm (having as a agent) and the nam meys or agents. If printed.	memb es of u no nan	per a 2p to p to a is 3	ocumer	u has been filed for
Please check the appropr	iate assignee category or	categories (will not be p	rinted on the patent):	Individual 🗖 Co	orporat	ion or other private gro	oup enti	ity 🗖 Government
Advance Order -	wo small entity discount p	permitted)	b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038	is atta	iched. required fee(s), any de	ficienc	
	s SMALL ENTITY state	is. See 37 CFR 1.27.	☐ b. Applicant is no lon					
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte tes Patent and Trademark	d from anyone other than t Office.	he applicant; a regi	stered	attorney or agent; or th	ne assig	nce or other party in
Authorized Signature				Date				
Typed or printed name				Registration No.				
This collection of inform an application. Confiden submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but (irginia 22313-1450. DC k13-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or a 1.14. This collection is est depending upon the indivention of fice COMPLETED FORMS TO COMPLETED FORMS TO TO TO T	retain a benefit by t timated to take 12 i ridual case. Any co er, U.S. Patent and D THIS ADDRESS	he pub minute mmen Trader S. SEN	lic which is to file (and is to complete, including its on the amount of the nark Office, U.S. Dep D TO: Commissioner	i by the ig gathe ne you artment for Pate	USPTO to process) ering, preparing, and require to complete of Commerce, P.O. ents, P.O. Box 1450,

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



# UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/655,838	09/05/2003	Mark E. Epstein	YOR920030404US1 7073		
49267	7590 08/26/2008		EXAMINER		
KEUSEY, TUTUNJIAN & BITETTO, P.C.			NATALIE		
	20 CROSSWAYS PARK NORTH, SUITE 210			PAPER NUMBER	
WOODBURY, NY 11797			2626		

DATE MAILED: 08/26/2008

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 897 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 897 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)	
10/655,838	EPSTEIN ET AL.	
Examiner	Art Unit	
NATALIE LENNOY	2626	

The MAILING DATE of this communication appears on the cover sheet with the correspondence address
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant, See 37 CFR 1,313 and MPEP 1308.

 This communication is responsive to 06/13/2008. The allowed claim(s) is/are 1-4, 8-12, 17, 32-33, 35, 37, and 39-44. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)  $\square$  All b) ☐ Some\* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. \_\_ 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. 

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413). Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. 

Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance

of Biological Material

9. ☐ Other . /Richemond Dorvil/

Supervisory Patent Examiner, Art Unit 2626

Application/Control Number: 10/655,838

Art Unit: 2626

# DETAILED ACTION

# Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 13, 2008 has been entered.

# Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

As per claim 1, there is no prior art reference, alone or in combination, that specifically teaches or suggests the limitation of a "semantic structure language model [that] is trained by including a unigram feature, a bigram feature, a trigram feature, a current active parent label (Li), a number of tokens (Ni) to the left since current parent label (Li) starts, a previous closed constituent label (Oi), a number of tokens (Mi) to the left after the previous closed constituent label finishes, and a number of questions to classify parser tree entries, wherein the questions include a default, (wj-1), (wj-1, wj-2), (Li), (Li, Ni), (Li, Ni, wj-1), and (Oi, Mi), where w represents a word and j is and index representing word position."

As per claim 44, there is no prior art reference, alone or in combination, that specifically teaches or suggests the limitation of a "unified language model [that] is trained by including a unigram feature, a bigram feature, a trigram

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Art Unit: 2626

feature, a current active parent label (Li), a number of tokens (Ni) to the left since current parent label (Li) starts, a previous closed constituent label (Oi), a number of tokens (Mi) to the left after the previous closed constituent label finishes, and a number of questions to classify parser tree entries, wherein the questions include a default, (wj-1), (wj-1, wj-2), (Li), (Li, Ni), (Li, Ni, wj-1), and (Oi, Mi), where w represents a word and j is and index representing word position to compute word probabilities."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

# Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATALIE LENNOX whose telephone number is (571)270-1649. The examiner can normally be reached on Monday to Friday 9:30 am - 7 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NL 08/21/2008